WEST Search History

DATE: Tuesday, October 22, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB; PLUR=YES; OP=ADJ			
L4	LaRosa.in. and CCR2	8	L4
DB=USPT; PLUR=YES; OP=ADJ			
L3	L1 and recombinant.clm.	5	L3
L2	L1 and recombinant	8	L2
L1	LaRosa.in. and CCR2	8	L1

END OF SEARCH HISTORY

WEST

End of Result Set

Generate Collection Print

L2: Entry 8 of 8 File: USPT Nov 6, 2001

US-PAT-NO: 6312689
DOCUMENT-IDENTIFIER: US 6312689 B1

TITLE: Anti-CCR2 antibodies and methods of use therefor

DATE-ISSUED: November 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		

US-CL-CURRENT: 424/130.1; 424/141.1, 424/143.1, 424/159.1, 530/388.22, 530/388.23, 530/389.2

CLAIMS:

What is claimed is:

1. An antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of said receptor.

2. An antibody or antigen-binding fragment thereof according to claim 1 wherein said antibody or antigen-binding fragment binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of said receptor.

3. An antibody or antigen-binding fragment thereof according to claim 1 wherein the antibody is selected from the group consisting of:

a) monoclonal antibody 1D9;

b) an antibody having the epitopic specificity of 1D9;

c) monoclonal antibody 8G2;

d) an antibody having the epitopic specificity of 8G2; and

e) antigen-binding fragments of any one of (a) through (d) which bind to mammalian CC-chemokine receptor 2 or a portion thereof.

4. An antibody or antigen-binding fragment thereof according to claim 1 wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

5. A composition comprising an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or

antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of said receptor, and an optional physiologically acceptable vehicle.

6. A method of treating a CC-chemokine receptor 2-mediated disorder in a patient, comprising administering to the patient an effective amount of an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of said receptor.

7. A method according to claim 6, wherein said CC-chemokine receptor 2-mediated disorder is an autoimmune disorder.

8. A method according to claim 7, wherein the autoimmune disorder is selected from the group consisting of multiple sclerosis and rheumatoid arthritis.

9. A method according to claim 8, wherein the autoimmune disorder is multiple sclerosis.

10. A method according to claim 6, wherein the CC-chemokine receptor 2-mediated disorder is selected from the group consisting of atherogensis and atherosclerosis.

11. An antibody or antigen-binding fragment according to claim 1, wherein said antibody or fragment is a monoclonal antibody or fragment thereof.

12. An antibody or antigen-binding fragment according to claim 1, wherein said antibody or fragment is a human antibody or fragment thereof.

13. An antibody or antigen-binding fragment according to claim 1, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

14. An antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof can compete with monoclonal antibody 1D9 for binding to said receptor.

15. An antibody or antigen-binding fragment thereof according to claim 14, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

16. An antibody or antigen-binding fragment thereof according to claim 14, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

17. A composition comprising an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof can compete with monoclonal antibody 1D9 for binding to said receptor, and an optional physiologically acceptable vehicle.

18. A pharmaceutical composition comprising an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein

said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof can compete with monoclonal antibody 1 D9 for binding to said receptor, and a physiologically acceptable vehicle.

19. An antibody or antigen-binding fragment according to claim 14, wherein said antibody or fragment is a monoclonal antibody or fragment thereof.

20. An antibody or antigen-binding fragment according to claim 14, wherein said antibody or fragment is a human antibody or fragment thereof.

21. An antibody or antigen-binding fragment according to claim 14, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

22. A composition comprising an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof can compete with monoclonal antibody 8G2 for binding to said receptor, and an optional physiologically acceptable vehicle.

23. A pharmaceutical composition comprising an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof can compete with monoclonal antibody 8G2 for binding to said receptor, and a physiologically acceptable vehicle.

24. An antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof can compete with monoclonal antibody 8G2 for binding to said receptor.

25. An antibody or antigen-binding fragment thereof according to claim 24, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokille receptor 2.

26. An antibody or antigen-binding fragment thereof according to claim 24, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

27. An antibody or antigen-binding fragment according to claim 24, wherein said antibody or fragment is a monoclonal antibody or fragment thereof.

28. An antibody or antigen-binding fragment according to claim 24, wherein said antibody or fragment is a human antibody or fragment thereof.

29. An antibody or antigen-binding fragment according to claim 24, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

30. An antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor and inhibits one or more functions associated with binding of the ligand to the receptor at a concentration of less than about 10 .mu.g/ml.

31. An antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor and inhibits one or more functions associated with binding of the ligand to the receptor at a concentration of less than about 0.1 .mu.g/ml.

32. An antibody or antigen-binding fragment thereof which binds to a human CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of said receptor.

33. An antibody or antigen-binding fragment according to claim 32, wherein said antibody or fragment is a monoclonal antibody or fragment thereof.

34. An antibody or antigen-binding fragment according to claim 32, wherein said antibody or fragment is a human antibody or fragment thereof.

35. An antibody or antigen-binding fragment thereof according to claim 32, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

36. A pharmaceutical composition comprising an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of said receptor, and a physiologically acceptable vehicle.

37. A composition comprising an antibody or antigen-binding fragment thereof which binds to a human CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof binds to the amino-terminal domain of said receptor, and an optional physiologically acceptable vehicle.

38. A pharmaceutical composition comprising an antibody or antigen-binding fragment thereof which binds to a human CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor, and wherein said antibody or antigen-binding fragment thereof binds to the amino-terminal domain of said receptor, and a physiologically acceptable vehicle.

39. A method according to claim 6, wherein said CC-chemokine receptor 2-mediated disorder is asthma.

40. A method according to claim 8, wherein the autoimmune disorder is multiple sclerosis.

41. A method according to claim 8, wherein the autoimmune disorder is rheumatoid arthritis.

42. A method according to claim 10, wherein the CC-chemokine receptor 2-mediated disorder is atherogenesis.

43. A method according to claim 10, wherein the CC-chemokine receptor 2-mediated disorder is atherosclerosis.

WEST

Generate Collection Print

L3: Entry 2 of 5 File: USPT Sep 17, 2002

US-PAT-NO: 6451522
DOCUMENT-IDENTIFIER: US 6451522 B2

TITLE: Anti-CCR2 antibodies and methods of use therefor

DATE-ISSUED: September 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		

US-CL-CURRENT: 435/5; 424/141.1, 435/345, 435/7.1, 435/7.93, 435/7.94

CLAIMS:

What is claimed is:

1. A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, comprising combining: a) an agent to be tested; b) an antibody or antigen-binding fragment thereof which binds to the amino terminal domain of mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor; and c) a composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof,

under conditions suitable for binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, and detecting or measuring binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, wherein the formation of a complex between said antibody or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.

2. A method according to claim 1, wherein said composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof is a cell bearing recombinant CC-chemokine receptor 2 or ligand-binding variant thereof.

3. A method according to claim 2, wherein said composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof is a membrane fraction of said cell bearing recombinant CC-chemokine receptor 2 or ligand-binding variant thereof.

4. A method according to claim 1 wherein the antibody or antigen-binding fragment is labeled with a label selected from the group consisting of a radioisotope, spin label, antigen label, enzyme label, fluorescent group and chemiluminescent group.

5. A method according to claim 1 wherein the agent is an antibody or antigen-binding fragment having specificity for a mammalian CC-chemokine receptor 2.

6. A method according to claim 1, wherein said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is a human CC-chemokine receptor 2 or ligand-binding variant thereof.

7. A method according to claim 1, wherein said antibody or antigen-binding fragment is a monoclonal antibody or antigen-binding fragment thereof.

8. A method according to claim 1, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

9. A method according to claim 1, wherein said antibody or antigen-binding fragment is a human antibody or antigen-binding fragment thereof.

10. A method according to claim 1, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

11. A method according to claim 10, wherein said humanized antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 1D9.

12. A method according to claim 10, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

13. A method according to claim 12, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

14. A method according to claim 10, wherein said humanized antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 8G2.

15. A method according to claim 10, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 8G2.

16. A method according to claim 15, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 8G2.

17. A method according to claim 1, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

18. A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, comprising combining: a) an agent to be tested; b) an antibody or antigen-binding fragment thereof having the epitopic specificity of monoclonal antibody 1D9 which inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor; and c) a composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof,

under conditions suitable for binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, and detecting or measuring binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, wherein the formation of a complex between said antibody or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant

thereof.

19. A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, comprising combining: a) an agent to be tested; b) an antibody or antigen-binding fragment thereof having the epitopic specificity of monoclonal antibody 8G2 which inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor; and c) a composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof,

under conditions suitable for binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, and detecting or measuring binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, wherein the formation of a complex between said antibody or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.

20. A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, comprising combining: a) an agent to be tested; b) an antibody or antigen-binding fragment thereof which can compete with monoclonal antibody 1D9 for binding to mammalian CC-chemokine receptor 2 and which inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor; and c) a composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof,

under conditions suitable for binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, and detecting or measuring binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, wherein the formation of a complex between said antibody or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.

21. A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, comprising combining: a) an agent to be tested; b) an antibody or antigen-binding fragment thereof which can compete with monoclonal antibody 8G2 for binding to mammalian CC-chemokine receptor 2 and which inhibits binding of a chemokine to said receptor and inhibits one or more functions associated with binding of the chemokine to said receptor; and c) a composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof,

under conditions suitable for binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, and detecting or measuring binding of said antibody or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, wherein the formation of a complex between said antibody or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.

22. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof binds a portion of the amino terminal domain which is from

about amino acid 1 to about amino acid 30 of said receptor.

23. A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, comprising combining: a) an agent to be tested; b) monoclonal antibody 1D9 or antigen-binding fragment thereof; and c) a composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof,

under conditions suitable for binding of said monoclonal antibody 1D9 or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, and detecting or measuring binding of said monoclonal antibody 1D9 or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, wherein the formation of a complex between said monoclonal antibody 1D9 or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.

24. A method of detecting or identifying an agent which binds a mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, comprising combining: a) an agent to be tested; b) monoclonal antibody 8G2 or antigen-binding fragment thereof; and c) a composition comprising a mammalian CC-chemokine receptor 2 or a ligand-binding variant thereof,

under conditions suitable for binding of said monoclonal antibody 8G2 or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, and detecting or measuring binding of said monoclonal antibody 8G2 or antigen-binding fragment thereof to said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof, wherein the formation of a complex between said monoclonal antibody 8G2 or antigen-binding fragment thereof and said mammalian CC-chemokine receptor 2 or ligand-binding variant thereof is monitored, and wherein a decrease in the amount of complex formed relative to a suitable control is indicative that the agent binds said receptor or ligand-binding variant thereof.

WEST

Generate Collection Print

L2: Entry 5 of 8 File: USPT Jun 18, 2002

US-PAT-NO: 6406694
DOCUMENT-IDENTIFIER: US 6406694 B1

TITLE: Anti-CCR2 antibodies

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		

US-CL-CURRENT: 424/130.1; 424/134.1, 424/141.1, 424/143.1, 424/85.1, 530/388.22, 530/388.23, 530/389.1

CLAIMS:

What is claimed is:

1. The hybridoma cell line deposited under ATCC Accession No. HB-12550.

2. A monoclonal antibody produced by the hybridoma cell line deposited under ATCC Accession No. HB-12550.

3. An antigen-binding fragment of a monoclonal antibody produced by the hybridoma cell line deposited under ATCC Accession No. HB-12550.

4. The antigen-binding fragment of claim 3, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

WEST

09/840,459
4/23/2001

Generate Collection Print

L4: Entry 1 of 8 File: PGPB Oct 17, 2002

PGPUB-DOCUMENT-NUMBER: 20020150576
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020150576 A1

TITLE: Humanized anti-CCR2 antibodies and methods of use therefor

PUBLICATION-DATE: October 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
LaRosa, Gregory J.	Newton	MA	US	
Horvath, Christopher	Taunton	MA	US	
Newman, Walter	Boston	MA	US	
Jones, S. Tarran	Radlett	MA	GB	
O'Brien, Siobhan H.	London		GB	
O'Keefe, Theresa	Waltham		US	

US-CL-CURRENT: 424/142.1; 530/388.15

CLAIMS:

What is claimed is:

1. A humanized immunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2, said immunoglobulin or fragment comprising an antigen binding region of nonhuman origin and at least a portion of an immunoglobulin of human origin.

2. The humanized immunoglobulin or antigen-binding fragment of claim 1, wherein the portion of an immunoglobulin of human origin is derived from a human constant region.

3. The humanized immunoglobulin or antigen-binding fragment of claim 2 wherein the human constant region is of the gamma type.

4. The humanized immunoglobulin or antigen-binding fragment of claim 2 wherein the antigen binding region is of rodent origin.

5. The humanized immunoglobulin or antigen-binding fragment of claim 2 wherein the antigen binding region is derived from monoclonal antibody 1D9.

6. The humanized immunoglobulin or antigen-binding fragment of claim 1 wherein the antigen binding region comprises at least one complementarity determining region of rodent origin, and the portion of an immunoglobulin of human origin is derived from a human framework region.

7. The humanized immunoglobulin or antigen-binding fragment of claim 6, wherein the complementarity determining region is derived from monoclonal antibody 1D9.

8. The humanized immunoglobulin or antigen-binding fragment of claim 6, wherein the complementarity determining region is selected from the group consisting of: a) amino acids 24-39 of SEQ ID NO: 9; b) amino acids 55-61 of SEQ ID NO: 9; C) amino acids 94-102 of SEQ ID NO: 9; d) amino acids 31-35 of SEQ ID NO: 10; e) amino acids 50-68 of SEQ ID NO: 10; and f) amino acids 101-106 of SEQ ID NO: 10.

9. A humanized immunoglobulin or antigen-binding fragment thereof having binding

specificity for CCR2 comprising a heavy chain and a light chain, wherein said light chain comprises at least one complementarity determining region derived from an antibody of nonhuman origin which binds CCR2 and a framework region derived from a light chain of human origin, and wherein said heavy chain comprises at least one complementarity determining region derived from an antibody of nonhuman origin which binds CCR2 and a framework region derived from a heavy chain of human origin.

10. The humanized immunoglobulin or antigen-binding fragment thereof of claim 9 wherein said imrmunoglobulin can compete with murine antibody 1D9 for binding to CCR2.

11. The humanized immunoglobulin or antigen-binding fragment thereof of claim 9 wherein the light chain comprises three complementarity determining regions derived from the light chain of the 1D9 antibody, and the heavy chain comprises three complementarity determining regions derived from the heavy chain of the 1D9 antibody.

12. The humanized immunoglobulin or antigen-binding fragment of claim 11, wherein the complementarity determining regions derived from the light chain of 1D9 are amino acids 24-39 of SEQ ID NO: 9, amino acids 55-61 of SEQ ID NO: 9 and amino acids 94-102 of SEQ ID NO: 9, and wherein the complementarity determining regions derived from the heavy chain of 1D9 are amino acids 31-35 of SEQ ID NO: 10, amino acids 50-68 of SEQ ID NO: 10 and amino acids 101-106 of SEQ ID NO: 10.

13. The humanized immunoglobulin or antigen-binding fragment thereof of claim 9 wherein the light chain of human origin is the light chain of the HF-21/28 antibody.

14. The humanized immunoglobulin of claim 9 wherein the heavy chain of human origin is the human 4B4'CL antibody.

15. A humanized immunoglobulin light chain or antigen-binding fragment thereof comprising CDR1, CDR2 and CDR3 of the light chain of murine 1D9 antibody and a human light chain framework region.

16. The humanized immunoglobulin light chain or antigen-binding fragment thereof of claim 15 wherein the human framework region is derived from the light chain of the HF-21/28 antibody.

17. The humanized immunoglobulin light chain or antigen-binding fragment thereof of claim 16 comprising the variable region of SEQ ID NO: 9.

18. An isolated nucleic acid molecule encoding the humanized immunoglobulin light chain or antigen-binding fragment thereof of claim 17.

19. The isolated nucleic acid molecule of claim 18 comprising the variable region coding sequence of SEQ ID NO: 95.

20. A humanized immunoglobulin heavy chain or antigen-binding fragment thereof comprising CDR1, CDR2 and CDR3 of the heavy chain of the 1D9 antibody and a human heavy chain framework region.

21. The humanized immunoglobulin heavy chain or antigen-binding fragment thereof of claim 20 wherein the human framework region is derived from the heavy chain of the human 4B4'CL antibody.

22. The humanized immunoglobulin heavy chain or antigen-binding fragment thereof of claim 21 comprising the variable region of SEQ ID NO: 10.

23. An isolated nucleic acid molecule encoding the humanized immunoglobulin heavy chain or antigen-binding fragment thereof of claim 22.

24. The isolated nucleic acid molecule of claim 23 comprising the variable region coding sequence of SEQ ID NO: 96.

25. A humanized immunoglobulin light chain or antigen-binding fragment thereof, said light chain or antigen-binding fragment thereof having an amino acid sequence comprising at least a functional portion of the light chain variable region amino acid sequence of SEQ ID NO: 9.

26. An isolated nucleic acid molecule comprising a nucleotide sequence encoding a humanized immunoglobulin light chain or antigen-binding fragment thereof of claim 25.

27. The isolated nucleic acid molecule of claim 26 comprising the variable region coding sequence of SEQ ID NO: 95.

28. A humanized immunoglobulin heavy chain or antigen-binding fragment thereof, said heavy chain or antigen-binding fragment thereof having an amino acid sequence comprising at least a functional portion of the heavy chain variable region amino acid sequence shown in SEQ ID NO: 10.

29. An isolated nucleic acid molecule comprising a nucleotide sequence encoding the humanized inununoglobulin heavy chain or antigen-binding fragment thereof of claim 28.

30. The isolated nucleic acid molecule of claim 29 comprising the variable region coding sequence of SEQ ID NO: 96.

31. An expression vector comprising a fused gene encoding a humanized immunoglobulin light chain, said gene comprising a nucleotide sequence encoding a CDR derived from a light chain of a nonhuman antibody having binding specificity for CCR2 and a framework region derived from a light chain of human origin.

32. The expression vector of claim 31, wherein the nonhuman antibody is murine antibody 1D9.

33. A host cell comprising the expression vector of claim 31.

34. An expression vector comprising a fused gene encoding a humanized immunoglobulin heavy chain, said gene comprising a nucleotide sequence encoding a CDR derived from a heavy chain of a nonhuman antibody having binding specificity for CCR2 and a framework region derived from a heavy chain of human origin.

35. The expression vector of claim 34, wherein the nonhuman antibody is murine antibody 1D9.

36. A host cell comprising the expression vector of claim 34.

37. A host cell comprising a first recombinant nucleic acid molecule encoding a humanized immunoglobulin light chain and a second recombinant nucleic acid molecule encoding a humanized immunoglobulin heavy chain, wherein said first nucleic acid molecule comprises a nucleotide sequence encoding a CDR derived from the light chain of murine antibody 1D9 and a framework region derived from a light chain of human origin, and wherein said second nucleic acid molecule comprises a nucleotide sequence encoding a CDR derived from the heavy chain of murine antibody 1D9 and a framework region derived from a heavy chain of human origin.

38. A method of preparing a humanized immunoglobulin comprising maintaining a host cell of claim 37 under conditions appropriate for expression of a humanized immunoglobulin, whereby humanized immunoglobulin chains are expressed and a humanized immunoglobulin is produced.

39. The method of claim 38 further comprising the step of isolating the humanized immunoglobulin.

40. A fused gene encoding a humanized immunoglobulin light or heavy chain comprising: a) a first nucleic acid sequence encoding an antigen binding region derived from murine monoclonal antibody 1D9; and b) a second nucleic acid sequence encoding at least a portion of a constant region of an immunoglobulin of human origin.

41. A method of inhibiting the interaction of a cell expressing CCR2 with a ligand of CCR2, comprising contacting said cell with an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1.

42. A method according to claim 41 wherein the cell is selected from the group consisting of lymphocytes, monocytes, granulocytes, T cells, basophils, and cells comprising a recombinant nucleic acid encoding CCR2 or a portion thereof.

43. A method according to claim 41 wherein the ligand is a chemokine.

44. A method according to claim 43 wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

45. A method according to claim 41 wherein the ligand is HIV.

46. A method of inhibiting HIV infection of a cell, comprising contacting a cell with an effective amount of a composition comprising a humanized immunoglobulin or antigen-binding fragment thereof of claim 1.

47. A method of treating HIV in a patient comprising administering to the patient a composition comprising an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1.

48. A method of inhibiting HIV infection in a patient, comprising administering to the patient a composition comprising an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1.

49. A method of inhibiting a function associated with binding of a chemokine to mammalian CCR2, comprising contacting CCR2 with an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1, wherein said humanized immunoglobulin inhibits binding of said chemokine to mammalian CCR2 and inhibits one or more functions associated with binding of the chemokine to CCR2.

50. A method according to claim 49 wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

51. A method of inhibiting leukocyte trafficking in a patient, comprising administering to the patient a composition comprising an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1 which binds to mammalian CCR2 or portion of CCR2 and inhibits binding of a ligand to the receptor.

52. A method according to claim 51 wherein the ligand is a chemokine.

53. A method according to claim 52 wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.

54. A method of treating a CCR2-mediated disorder in a patient, comprising administering to the patient an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1 which binds to mammalian CCR2 or portion thereof.

55. A method according to claim 54 wherein the disorder is an inflammatory disorder.

56. A method of inhibiting restenosis in a patient, comprising administering to the patient an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1 which binds to mammalian CCR2 or portion thereof.

57. A humanized immunoglobulin or antigen-binding fragment thereof of claim 1 for use in therapy or diagnosis.

58. A humanized immunoglobulin or antigen-binding fragment thereof of claim 1 for use in treating a CCR2-mediated disease.

59. Use of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1 for the manufacture of a medicament for treating a CCR2-mediated disease.

60. A pharmaceutical composition comprising a humanized immunoglobulin or antigen-binding fragment thereof of claim 1 and a physiologically acceptable carrier.

61. A humanized immunoglobulin light chain or antigen-binding fragment thereof having binding specificity for CCR2 comprising an amino acid sequence selected from the group consisting of: a) SEQ ID NO: 12; b) SEQ ID NO: 13; c) SEQ ID NO: 14; and d) SEQIDNO: 15.

62. A humanized immunoglobulin heavy chain or antigen-binding fragment thereof having binding specificity for CCR2 comprising an amino acid sequence selected from the group consisting of: a) SEQ ID NO: 17; b) SEQ IDNO: 18; c) SEQ ID NO: 19; and d) SEQ ID NO: 20.

63. A humanized immunoglobulin light chain or antigen-binding fragment thereof having binding specificity for CCR2 encoded by a nucleic acid molecule comprising SEQ ID NO:

98.

64. A humanized immunoglobulin heavy chain or antigen-binding fragment thereof having binding specificity for CCR2 encoded by a nucleic acid molecule comprising SEQ ID NO: 97.

65. A chimeric immunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2 comprising a light chain variable region of nonhuman origin and a human constant region.

66. A chimeric immunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2 comprising a heavy chain variable region of nonhuman origin and a human constant region.

67. A chimeric immunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2 comprising a light chain variable chain region of nonhuman origin and a heavy chain variable region of nonhuman origin and further comprising a human constant region.

68. A method according to claim 56, wherein said restenosis is associated with vascular intervention in said mammal.

69. A method according to claim 68, wherein said vascular intervention comprises angioplasty.

70. A method according to claim 68, wherein said vascular intervention comprises stent placement.

71. A method according to claim 68, wherein said vascular intervention comprises angioplasty and stent placement.

72. A method of inhibiting narrowing of the lumen of a vessel in a mammal, comprising administering to said mammal an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1 or claim 9 which binds to mammalian CCR2 or portion thereof.

73. A method of inhibiting neointimal hyperplasia of a vessel in a mammal, comprising administering to said mammal an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of claim 1 or claim 9 which binds to mammalian CCR2 or portion thereof.

74. A method according to claim 73, wherein said neointimal hyperplasia is associated with vascular intervention in said mammal.

75. A method according to claim 74, wherein said vascular intervention comprises angioplasty.

76. A method according to claim 74, wherein said vascular intervention comprises stent placement.

77. A method according to claim 74, wherein said vascular intervention comprises angioplasty and stent placement.

78. A method according to claim 54, wherein said CCR2-mediated disorder is an autoimmune disorder.

79. A method according to claim 78, wherein the autoimmune disorder is selected from the group consisting of multiple sclerosis and rheumatoid arthritis.

80. A method according to claim 79 wherein the autoimmune disorder is multiple sclerosis.

81. A method according to claim 54, wherein the CCR2-mediated disorder is selected from the group consisting of atherogenesis and atherosclerosis.

82. A humanized irnmunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2 comprising a heavy chain and a light chain, wherein said light chain comprises at least one complementarity determining region derived from murine monoclonal antibody 1D9 and a framework region derived from the light chain of human

antibody HF-21/28, and wherein said heavy chain comprises at least one complementarity determining region derived from murine monoclonal antibody 1D9 and a framework region derived from the heavy chain of human antibody 4B4'CL.

83. The humanized immunoglobulin or antigen-binding fragment thereof of claim 82 wherein the light chain comprises three complementarity determining regions derived from the light chain of the 1D9 antibody, and the heavy chain comprises three complementarity determining regions derived from the heavy chain of the 1D9 antibody.

84. The humanized immunoglobulin or antigen-binding fragment of claim 83, wherein the complementarity determining regions derived from the light chain of 1D9 are amino acids 24-39 of SEQ ID NO: 9, amino acids 55-61 of SEQ ID NO: 9 and amino acids 94-102 of SEQ ID NO: 9, and wherein the complementarity determining regions derived from the heavy chain of 1D9 are amino acids 31-35 of SEQ ID NO: 10, amino acids 50-68 of SEQ ID NO: 10 and amino acids 101-106 of SEQ ID NO: 10.

85. A humanized immunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2 comprising a light chain and a complementary heavy chain, wherein said light chain comprises a variable region comprising SEQ ID NO: 12.

86. A humanized immunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2 comprising a heavy chain and a complementary light chain, wherein said heavy chain comprises a variable region comprising SEQ ID NO: 17.

87. A humanized immunoglobulin or antigen-binding fragment thereof having binding specificity for CCR2 comprising a heavy chain and a light chain, wherein said light chain comprises a variable region comprising SEQ ID NO: 12, and wherein said heavy chain comprises a variable region comprising SEQ ID NO: 17.

88. The humanized immunoglobulin or antigen-binding fragment of claim 87, wherein said immunoglobulin can compete with murine antibody 1D9 for binding to CCR2.

89. The humanized immunoglobulin or antigen-binding fragment of claim 87, wherein said immunoglobulin inhibits binding of a ligand to CCR2.

90. The humanized immunoglobulin or antigen-binding fragment of claim 89, wherein the ligand is a chemokine.

91. The humanized immunoglobulin or antigen-binding fragment of claim 90, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.

92. A pharmaceutical composition comprising a humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87 and a physiologically acceptable carrier.

93. A method of inhibiting the interaction of a cell expressing CCR2 with a ligand of CCR2, comprising contacting said cell with an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87.

94. A method of inhibiting HIV infection in a patient, comprising administering to the patient a composition comprising an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87.

95. A method of inhibiting a function associated with binding of a chemokine to mammalian CCR2, comp rising contacting CCR2 with an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87, wherein said humanized immunoglobulin inhibits binding of said chemokine to mammalian CCR2 and inhibits one or more functions associated with binding of the chemokine to CCR2.

96. A method of treating a CCR2-mediated disorder in a patient, comprising admin istering to the patient an effective amount of a humanized immunoglobulin or an tigen-binding fragment thereof of any one of claims 82-87 which binds to mammalian CCR2 or portion thereof.

97. A method of inhibiting restenosis in a patient, comprising administering to the patient an effective amount of a humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87 which binds to mammalian CCR2 or portion thereof.

98. A humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87 for use in therapy or diagnosis.

99. A humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87 for use in treating a CCR2-mediated disease.

100. Use of a humanized immunoglobulin or antigen-binding fragment thereof of any one of claims 82-87 for the manufacture of a medicament for treating a CCR2-mediated disease.

101. A humanized immunoglobulin light chain or antigen-binding fragment thereof having binding specificity for CCR2 comprising the amino acid sequence of SEQ ID NO: 107.

WEST

Generate Collection Print

L3: Entry 3 of 5 File: USPT Sep 10, 2002

US-PAT-NO: 6448021
DOCUMENT-IDENTIFIER: US 6448021 B1

TITLE: Method of inhibiting cell function associated with CCR2 by anti-CCR2 amino-terminal domain antibodies

DATE-ISSUED: September 10, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		

US-CL-CURRENT: 435/7.1; 424/141.1, 435/345, 435/5, 435/7.93, 435/7.94

CLAIMS:

What is claimed is:

1. A method of inhibiting a function associated with binding of a chemokine to a mammalian CC-chemokine receptor 2 or a functional portion of said receptor, comprising contacting a composit ion comprising the receptor or portion with an effective amount of an antibody or antigen-binding fragment thereof which binds to the amino terminal domain of a mammalian CC-chemokine receptor 2, wherein said antibody inhibits binding of said chemokine to mammalian CC-chemokine receptor 2 and inhibits one or more functions associated with binding of the chemokine to the receptor.

2. A method according to claim 1, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

3. A method according to claim 1, wherein said function is selected from the group consisting of: (a) signaling activity; (b) stimulation of a cellular response; and (c) combinations of (a) and (b).

4. A method according to claim 3, wherein said function is signaling activity and is selected from the group consisting of: (a) activation of a mammalian G protein; (b) induction of a rapid and transient increase in the concentration of cytosolic free calcium [Ca.sup.2+]I; and (c) combinations of (a) and (b).

5. A method according to claim 3, wherein said function is stimulation of a cellular response and is selected from the group consisting of: (a) stimulation of chemotaxis; (b) exocytosis; (c) inflammatory mediator release by leukocytes; (d) integrin activation; (e) T cell activation; and (f) combinations of (a), (b), (c), (d) and (e).

6. A method according to claim 1, wherein said composition is a cell bearing mammalian CC-chemokine 2 receptor.

7. A method according to claim 6, wherein said cell is selected from the group consisting of lymphocytes, monocytes, granulocytes, T cells, basophils, and cells comprising a recombinant nucleic acid encoding CCR2 or a portion thereof.

8. A method according to claim 7, wherein said T cells are selected from the group consisting of CD8+ cells, CD25+ cells, CD4+ cells and CD45RO+ cells.

9. A method according to claim 1, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

10. A method according to claim 1, wherein said antibody or antigen-binding fragment is a monoclonal antibody or antigen-binding fragment thereof.

11. A method according to claim 1, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

12. A method according to claim 1, wherein said antibody or antigen-binding fragment is a human antibody or antigen-binding fragment thereof.

13. A method according to claim 1, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

14. A method according to claim 13, wherein said humanized antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 1D9.

15. A method according to claim 13, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

16. A method according to claim 15, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

17. A method according to claim 1, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

18. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof is an antibody or fragment having the epitopic specificity of monoclonal antibody 1D9.

19. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof is an antibody or fragment which can compete with monoclonal antibody 1D9 for binding to mammalian CC-chemokine receptor 2.

20. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of said receptor.

21. A method of inhibiting a function associated with binding of a chemokine to a mammalian CC-chemokine receptor 2 or a functional portion of said receptor, comprising contacting a composition comprising the receptor or portion with an effective amount of monoclonal antibody 1D9 or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2.

WEST

Generate Collection Print

L3: Entry 4 of 5 File: USPT Jun 18, 2002

US-PAT-NO: 6406865
DOCUMENT-IDENTIFIER: US 6406865 B2

TITLE: Method of inhibiting interaction of cells bearing CCR2 by Anti-CCR2 amino-terminal domain antibodies

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		

US-CL-CURRENT: 435/7.1; 424/141.1, 435/345, 435/5, 435/7.93, 435/7.94

CLAIMS:

What is claimed is:

1. A method of inhibiting the interaction of a cell bearing mammalian CC-chemokine receptor 2 with a ligand thereof, comprising contacting said cell with an effective amount of an antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of mammalian CC-chemokine receptor 2 and inhibits binding of said ligand to the receptor.

2. A method according to claim 1, wherein said cell is selected from the group consisting of lymphocytes, monocytes, granulocytes, T cells, basophils, and cells comprising a recombinant nucleic acid encoding CCR2 or a portion thereof.

3. A method according to claim 2, wherein said T cells are selected from the group consisting of CD8+ cells, CD25+ cells, CD4+ cells and CD45RO+ cells.

4. A method according to claim 1, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

5. A method according to claim 1, wherein said ligand is a chemokine.

6. A method according to claim 5 wherein said chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

7. A method according to claim 1, wherein said antibody or antigen-binding fragment is a monoclonal antibody or antigen-binding fragment thereof.

8. A method according to claim 1, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

9. A method according to claim 1, wherein said antibody or antigen-binding fragment is a human antibody or antigen-binding fragment thereof.

10. A method according to claim 1, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

11. A method according to claim 10, wherein said humanized antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 1D9.

12. A method according to claim 10, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

13. A method according to claim 12, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

14. A method according to claim 1, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

15. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof is an antibody or fragment having the epitopic specificity of monoclonal antibody 1D9.

16. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof is an antibody or fragment which can compete with monoclonal antibody 1D9 for binding to mammalian CC-chemokine receptor 2.

17. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of said receptor.

18. A method of inhibiting the interaction of a cell bearing mammalian CC-chemokine receptor 2 with a ligand thereof, comprising contacting said cell with an effective amount of monoclonal antibody 1D9 or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 2 and inhibits binding of said ligand to the receptor.

WEST

End of Result Set

Generate Collection Print

L3: Entry 5 of 5 File: USPT Mar 5, 2002

US-PAT-NO: 6352832
DOCUMENT-IDENTIFIER: US 6352832 B1

TITLE: Anti-CCR2 antibodies and methods of use therefor

DATE-ISSUED: March 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		
Horvath; Christopher	Taunton	MA		
Newman; Walter	Boston	MA		

US-CL-CURRENT: 435/7.1; 435/343, 435/343.2, 435/345, 435/5, 436/548

CLAIMS:

What is claimed is:

1. A method of inhibiting restenosis in a patient, comprising administering to the patient an effective amount of an antibody or antigen-binding fragment thereof which binds to mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor.

2. A method according to claim 1, wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

a) monoclonal antibody 1D9;

b) an antibody having the epitopic specificity of monoclonal antibody 1D9;

c) an antibody which can compete with monoclonal antibody 1D9 for binding to mammalian CC-chemokine receptor 2;

d) monoclonal antibody 8G2;

e) an antibody having the epitopic specificity of monoclonal antibody 8G2;

f) an antibody which can compete with monoclonal antibody 8G2 for binding to mammalian CC-chemokine receptor 2;

g) antigen-binding fragments of any one of (a) through (g) which bind to mammalian CC-chemokine receptor 2; and

h) combinations of the foregoing.

3. A method of inhibiting restenosis of a vessel in a mammal, comprising administering to said mammal an effective amount of an antibody or

antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor.

4. A method according to claim 3 wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

a) monoclonal antibody 1D9;

b) an antibody having the epitopic specificity of monoclonal antibody 1D9;

c) an antibody which can compete with monoclonal antibody 1D9 for binding to mammalian CC-chemokine receptor 2;

d) monoclonal antibody 8G2;

e) an antibody having the epitopic specificity of monoclonal antibody 8G2;

f) an antibody which can compete with monoclonal antibody 8G2 for binding to mammalian CC-chemokine receptor 2;

g) antigen-binding fragments of any one of (a) through (g) which bind to mammalian CC-chemokine receptor 2; and

h) combinations of the foregoing.

5. A method according to claim 3, wherein said restenosis is associated with vascular intervention in said mammal.

6. A method according to claim 5, wherein said vascular intervention comprises angioplasty.

7. A method according to claim 5, wherein said vascular intervention comprises stent placement.

8. A method according to claim 5, wherein said vascular intervention comprises angioplasty and stent placement.

9. A method of inhibiting narrowing of the lumen of a vessel in a mammal, comprising administering to said mammal an effective amount of an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor.

10. A method according to claim 9 wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

a) monoclonal antibody 1D9;

b) an antibody having the epitopic specificity of monoclonal antibody 1D9;

c) an antibody which can compete with monoclonal antibody 1 D9 for binding to mammalian CC-chemokine receptor 2;

d) monoclonal antibody 8G2;

e) an antibody having the epitopic specificity of monoclonal antibody 8G2;

f) an antibody which can compete with monoclonal antibody 8G2 for binding to mammalian CC-chemokine receptor 2;

g) antigen-binding fragments of any one of (a) through (g) which bind to mammalian CC-chemokine receptor 2; and

h) combinations of the foregoing.

11. A method of inhibiting neointimal hyperplasia of a vessel in a mammal, comprising administering to said mammal an effective amount of an antibody or antigen-binding fragment thereof which binds to a mammalian CC-chemokine receptor 2, wherein said antibody or antigen-binding fragment thereof inhibits binding of a ligand to the receptor.

12. A method according to claim 11 wherein the antibody or antigen-binding fragment thereof is selected from the group consisting of:

a) monoclonal antibody 1D9;

b) an antibody having the epitopic specificity of monoclonal antibody 1D9;

c) an antibody which can compete with monoclonal antibody 1D9 for binding to mammalian CC-chemokine receptor 2;

d) monoclonal antibody 8G2;

e) an antibody having the epitopic specificity of monoclonal antibody 8G2;

f) an antibody which can compete with monoclonal antibody 8G2 for binding to mammalian CC-chemokine receptor 2;

g) antigen-binding fragments of any one of (a) through (g) which bind to mammalian CC-chemokine receptor 2; and

h) combinations of the foregoing.

13. A method according to claim 11, wherein said neointimal hyperplasia is associated with vascular intervention in said mammal.

14. A method according to claim 13, wherein said vascular intervention comprises angioplasty.

15. A method according to claim 13, wherein said vascular intervention comprises stent placement.

16. A method according to claim 13, wherein said vascular intervention comprises angioplasty and stent placement.

17. A method according to claim 1, wherein the ligand is a chemokine.

18. A method according to claim 17, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

19. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of the receptor.

20. A method according to claim 19, wherein said antibody or antigen-binding fragment binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of the receptor.

21. A method according to claim 1, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

22. A method according to claim 1, wherein said antibody or antigen-binding

fragment thereof is a monoclonal antibody or antigen-binding fragment thereof.

23. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof is a human antibody or antigen-binding fragment thereof.

24. A method according to claim 1, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

25. A method according to claim 1, wherein said antibody or antigen-binding fragment is a recombinant antibody or antigen-binding fragment thereof.

26. A method according to claim 1, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

27. A method according to claim 26, wherein said humanized antibody comprises one or more antigen-binding regions of monoclonal antibody 1D9.

28. A method according to claim 26, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

29. A method according to claim 28, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

30. A method according to claim 1, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

31. A method according to claim 3, wherein the ligand is a chemokine.

32. A method according to claim 31, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

33. A method according to claim 3, wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of the receptor.

34. A method according to claim 33, wherein said antibody or antigen-binding fragment binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of the receptor.

35. A method according to claim 3, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

36. A method according to claim 3, wherein said antibody or antigen-binding fragment thereof is a monoclonal antibody or antigen-binding fragment thereof.

37. A method according to claim 3, wherein said antibody or antigen-binding fragment thereof is a human antibody or antigen-binding fragment thereof.

38. A method according to claim 3, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

39. A method according to claim 3, wherein said antibody or antigen-binding fragment is a recombinant antibody or antigen-binding fragment thereof.

40. A method according to claim 3, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

41. A method according to claim 40, wherein said humanized antibody comprises one or more antigen-binding regions of monoclonal antibody 1D9.

42. A method according to claim 40, wherein said humanized antibody comprises

one or more complementarity-determining regions of monoclonal antibody 1D9.

43. A method according to claim 42, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

44. A method according to claim 3, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

45. A method according to claim 9, wherein the ligand is a chemokine.

46. A method according to claim 45, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

47. A method according to claim 9, wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of the receptor.

48. A method according to claim 47, wherein said antibody or antigen-binding fragment binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of the receptor.

49. A method according to claim 9, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

50. A method according to claim 9, wherein said antibody or antigen-binding fragment thereof is a monoclonal antibody or antigen-binding fragment thereof.

51. A method according to claim 9, wherein said antibody or antigen-binding fragment thereof is a human antibody or antigen-binding fragment thereof.

52. A method according to claim 9, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

53. A method according to claim 9, wherein said antibody or antigen-binding fragment is a recombinant antibody or antigen-binding fragment thereof.

54. A method according to claim 9, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

55. A method according to claim 54, wherein said humanized antibody comprises one or more antigen-binding regions of monoclonal antibody 1D9.

56. A method according to claim 54, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

57. A method according to claim 56, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

58. A method according to claim 9, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

59. A method according to claim 11, wherein the ligand is a chemokine.

60. A method according to claim 59, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations thereof.

61. A method according to claim 11, wherein said antibody or antigen-binding fragment thereof binds the amino-terminal domain of the receptor.

62. A method according to claim 61, wherein said antibody or antigen-binding

fragment binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of the receptor.

63. A method according to claim 11, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

64. A method according to claim 11, wherein said antibody or antigen-binding fragment thereof is a monoclonal antibody or antigen-binding fragment thereof.

65. A method according to claim 11, wherein said antibody or antigen-binding fragment thereof is a human antibody or antigen-binding fragment thereof.

66. A method according to claim 11, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

67. A method according to claim 11, wherein said antibody or antigen-binding fragment is a recombinant antibody or antigen-binding fragment thereof.

68. A method according to claim 11, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

69. A method according to claim 68, wherein said humanized antibody comprises one or more antigen-binding regions of monoclonal antibody 1D9.

70. A method according to claim 68, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

71. A method according to claim 70, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

72. A method according to claim 11, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

WEST

Generate Collection Print

L3: Entry 1 of 5 File: USPT Oct 1, 2002

US-PAT-NO: 6458353
DOCUMENT-IDENTIFIER: US 6458353 B1

TITLE: Anti-CCR2 antibodies and methods of use therefor

DATE-ISSUED: October 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		

US-CL-CURRENT: 424/130.1; 424/141.1, 424/143.1, 424/159.1, 435/69.1, 530/388.22, 530/388.23, 530/389.2

CLAIMS:

What is claimed is:

1. A recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein.

2. A recombinant antibody or antigen-binding fragment thereof according to claim 1, wherein said mammalian receptor protein is a human receptor protein.

3. A recombinant antibody or antigen-binding fragment thereof according to claim 1, wherein said recombinant antibody or antigen-binding fragment thereof can compete with monoclonal antibody 1D9 for binding to said receptor protein.

4. A recombinant antibody or antigen-binding fragment thereof according to claim 1, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 1D9.

5. A recombinant antibody or antigen-binding fragment thereof according to claim 1, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

6. A recombinant antibody or antigen binding fragment thereof according to claim 5, wherein said recombinant antibody or antigen-binding fragment thereof comprises six complementarity-determining regions of monoclonal antibody 1D9.

7. A recombinant antibody or antigen-binding fragment thereof according to claim 1, wherein said recombinant antibody or antigen-binding fragment thereof can compete with monoclonal antibody 8G2 for binding to said receptor protein.

8. A recombinant antibody or antigen-binding fragment thereof according to claim 1, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 8G2.

9. A recombinant antibody or antigen-binding fragment thereof according to claim 1, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more complementarity-determining regions of monoclonal antibody 8G2.

10. A recombinant antibody or antigen-binding fragment thereof according to claim 9, wherein said recombinant antibody or antigen-binding fragment thereof comprises six complementarity-determining regions of monoclonal antibody 8G2.

11. A composition comprising a recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein, and an optional physiologically acceptable vehicale.

12. A pharmaceutical composition comprising a recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein, and a physiologically acceptable vehicle.

13. A recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein and wherein said recombinant antibody or antigen-binding fragment thereof is a chimeric antibody or antigen-binding fragment thereof.

14. A recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein and wherein said recombinant antibody or antigen-binding fragment thereof is a humanized antibody or antigen-binding fragment thereof.

15. A recombinant antibody or antigen-binding fragment thereof according to claim 13, wherein said mammalian receptor protein is a human receptor protein.

16. A recombinant antibody or antigen-binding fragment thereof according to claim 13, wherein said recombinant antibody or antigen-binding fragment thereof can complete with monoclonal antibody 1D9 for binding to said receptor protein.

17. A recombinant antibody or antigen-binding fragment thereof according to claim 13, wherein said recombinant antibody or antigent-binding fragment thereof comprises one or more antigen-binding regions or monoclonal antibody 1D9.

18. A recombinant antibody or antigen-binding fragment thereof according to claim 13, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more complementarily-determining regions of momoclonal antibody 1D9.

19. A recombinant antibody or antigen-binding fragment thereof according to claim 18, wherein said recombinant antibody or antigen-binding fragment thereof comprises six complementarily-determining regions of monoclonal antibody 1D9.

20. A recombinant antibody or antigen-binding fragment thereof according to claim 13, wherein said recombinant antibody or antigen-binding fragment thereof

can compete with monoclonal antibody 8G2 for binding to said receptor protein.

21. A recombinant antibody or antigen-binding fragment thereof according to claim 13, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 8G2.

22. A recombinant antibody or antigen-binding fragment thereof according to claim 13, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more complementarily-determining regions of monoclonal antibody 8G2.

23. A recombinant antibody or antigen-binding fragment thereof according to claim 22, wherein said recombinant antibody or antigen-binding fragment thereof comprises six complementarily-determining regions of monoclonal antibody 8G2.

24. A composition comprising a recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chimokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein and wherein said recombinant antibody or antigen-binding fragment thereof is a chimeric antibody or antigen-binding fragment thereof, and an optional physiologically acceptable vehicle.

25. A pharmaceutical composition comprising a recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein an wherein said recombinant antibody or antigen-binding fragment thereof is a chemeric antibody or antigen-binding fragment thereof, and a physiologically acceptable vehicle.

26. A recombinant antibody or antigen-binding fragment thereof according to claim 14, wherein said mammalian receptor protein is a human receptor protein.

27. A recombinant antibody or antigen-binding fragment thereof according to claim 14, wherein said recombinant antibody or antigen-binding fragment thereof can compete with monoclonal antibody 1D9 for binding to said receptor protein.

28. A recombinant antibody or antigen-binding fragment thereof according to claim 14, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 1D9.

29. A recombinant antibody or antigen-binding fragment thereof according to claim 14, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more complementarily-determining regions of monoclonal antibody 1D9.

30. A recombinant antibody or antigen-binding fragment thereof according to claim 29, wherein said recombinant antibody or antigen-binding fragment thereof comprises six complementarily-determining regions of monoclonal antibody 1D9.

31. A recombinant antibody or antigen-binding fragment thereof according to claim 14, wherein said recombinant antibody or antigen-binding fragment thereof can compete with monoclonal antibody 8G2 for binding to said receptor protein.

32. A recombinant antibody or antigen-binding fragment thereof according to claim 14, wherein said recombinant antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 8G`.

33. A recombinant antibody or antigen-binding fragment thereof according to claim 14, wherein said recombinant antibody or antigen-binding fragment thereof

comprises one or more complementarily-determining regions of monoclonal antibody 8G2.

34. A recombinant antibody or antigen-binding fragment thereof according to claim 33, wherein said recombinant antibody or antigen-binding fragment thereof comprises six complementarily-determining regions of monoclonal antibody 8G2.

35. A composition comprising a recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein and wherein said recombinant antibody or antigen-binding fragment thereof is a humanized antibody or antigen-binding fragment thereof, and an optional physiologically acceptable vehicle.

36. A pharmaceutical composition comprising a recombinant antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 protein, wherein said recombinant antibody or antigen-binding fragment thereof inhibits binding of a chemokine to said receptor protein and inhibits one or more functions associated with binding of the chemokine to said receptor protein and wherein said recombinant antibody or antigen-binding fragment thereof is a humanized antibody or antigen-binding fragment thereof, and a physiologically acceptable vehicle.

37. A composition according to claim 11, wherein said mammalian receptor protein is a human receptor protein.

38. A pharmaceutical composition according to claim 12, wherein said mammalian receptor protein is a human receptor protein.

39. A composition according to claim 24, wherein said mammalian receptor protein is a human receptor protein.

40. A pharmaceutical composition according to claim 25, wherein said mammalian receptor protein is human receptor protein.

41. A composition according to claim 35, wherein said mammalian receptor protein is a human receptor protein.

42. A pharmaceutical composition according to claim 36, wherein said mammalian receptor protein is a human receptor protein.

WEST

Generate Collection Print

L2: Entry 6 of 8 File: USPT May 28, 2002

US-PAT-NO: 6395497
DOCUMENT-IDENTIFIER: US 6395497 B1

TITLE: Method of inhibiting leukocyte trafficking by anti-CCR2 amino-terminal domain antibodies

DATE-ISSUED: May 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LaRosa; Gregory J.	West Roxbury	MA		

US-CL-CURRENT: 435/7.1; 424/141.1, 435/345, 435/5, 435/7.93, 435/7.94

CLAIMS:

What is claimed is:

1. A method of inhibiting leukocyte trafficking in a patient, comprising administering to the patient a composition comprising an effective amount of an antibody or antigen-binding fragment thereof which binds to the amino-terminal domain of a mammalian CC-chemokine receptor 2 and inhibits binding of a ligand to the receptor.

2. A method according to claim 1, wherein the ligand is a chemokine.

3. A method according to claim 2, wherein the chemokine is selected from the group consisting of MCP-1, MCP-2, MCP-3, MCP-4 and combinations of the foregoing.

4. A method according to claim 1, wherein said mammalian CC-chemokine receptor 2 is a human CC-chemokine receptor 2.

5. A method according to claim 1, wherein said antibody or antigen-binding fragment is a monoclonal antibody or antigen-binding fragment thereof.

6. A method according to claim 1, wherein said antibody or antigen-binding fragment is a chimeric antibody or antigen-binding fragment thereof.

7. A method according to claim 1, wherein said antibody or antigen-binding fragment is a human antibody or antigen-binding fragment thereof.

8. A method according to claim 1, wherein said antibody or antigen-binding fragment is a humanized antibody or antigen-binding fragment thereof.

9. A method according to claim 8, wherein said humanized antibody or antigen-binding fragment thereof comprises one or more antigen-binding regions of monoclonal antibody 1D9.

10. A method according to claim 8, wherein said humanized antibody comprises one or more complementarity-determining regions of monoclonal antibody 1D9.

11. A method according to claim 10, wherein said humanized antibody comprises six complementarity-determining regions of monoclonal antibody 1D9.

12. A method according to claim 1, wherein said antigen-binding fragment is selected from the group consisting of an Fv fragment, an Fab fragment, an Fab' fragment and an F(ab').sub.2 fragment.

13. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof is an antibody or fragment having the epitopic specificity of monoclonal antibody 1D9.

14. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof is an antibody or fragment which can compete with monoclonal antibody 1D9 for binding to mammalian CC-chemokine receptor 2.

15. A method according to claim 1, wherein said antibody or antigen-binding fragment thereof binds a portion of the amino-terminal domain which is from about amino acid 1 to about amino acid 30 of said receptor.

16. A method of inhibiting leukocyte trafficking in a patient, comprising administering to the patient a composition comprising an effective amount of monoclonal antibody 1D9 or antigen-binding fragment thereof.

WEST Search History

DATE: Tuesday, October 22, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB; PLUR=YES; OP=ADJ			
L4	CCR2.clm.	11	L4
L3	CCR2	71	L3
L2	Rao.in. and CCR2	1	L2
L1	Rao.in.	171	L1

END OF SEARCH HISTORY